CITY OF McALLEN

NOTICE OF WORKSHOP TO BE HELD BY THE MCALLEN BOARD OF COMMISSIONERS MONDAY, SEPTEMBER 14, 2026 – 4:00 PM MCALLEN CITY HALL CITY COMMISSION CHAMBERS; 3RD FLOOR 1300 HOUSTON AVENUE MCALLEN TEXAS, 78501

AGENDA

"At any time during the course of this meeting, the City Commission may retire to Executive Session under Texas Government Code 551.071(2) to confer with its legal counsel on any subject matter on this agenda in which the duty of the attorney to the City Commission under the Texas Disciplinary Rules of Professional Conduct of the State Bar of Texas clearly conflicts with Chapter 551 of the Texas Government Code. Further, at any time during the course of this meeting, the City Commission may retire to Executive Session to deliberate on any subject slated for discussion at this meeting, as may be permitted under one or more of the exceptions to the Open Meetings Act set forth in Title 5, Subtitle A, Chapter 551, Subchapter D of the Texas Government Code."

CALL TO ORDER

1. Present questions to staff relating to the September 14, 2026 Regular Meeting Agenda, to be discussed at such meeting.
2. Presentation on the ongoing planning and engineering design efforts related to the Brackish Groundwater Desalination Facility.
3. **EXECUTIVE SESSION, CHAPTER 551, TEXAS GOVERNMENT CODE, SECTION 551.071 (CONSULTATION WITH ATTORNEY), SECTION 551.072 (DELIBERATION REGARDING REAL PROPERTY), SECTION 551.074 (PERSONNEL MATTERS) AND SECTION 551.087 (ECONOMIC DEVELOPMENT)**

   A) Discussion and possible lease, sale or purchase of real property, Tracts 1. Tex. Gov't. Code §551.072.

   B) Consideration of Economic Development matters. Tex. Gov't. Code §551.087.

ADJOURNMENT

IF ANY ACCOMMODATION FOR A DISABILITY IS REQUIRED (OR INTERPRETERS FOR THE DEAF), NOTIFY THE CITY SECRETARY'S DEPARTMENT AT 681-1020 FORTY-EIGHT (48) HOURS PRIOR TO THE MEETING DATE. WITH REGARD TO ANY ITEM, THE BOARD OF COMMISSIONERS MAY TAKE VARIOUS ACTIONS INCLUDING BUT NOT LIMITED TO RESCHEDULING AN ITEM IN ITS ENTIRETY FOR A FUTURE DATE OR TIME.

C E R T I F I C A T I O N

I, the Undersigned Authority, do hereby certify that the above notice of meeting and agenda for the City of McAllen Board of Commissioners is a true and correct copy and that I posted a true and correct copy of said notice of meeting and agenda for the City of McAllen Board of Commissioners on September 8, 2026 on the bulletin board in the municipal building, a place readily accessible to the general public at all times for at least three business days before the scheduled date of the meeting, in accordance with Chapter 551 of the Texas Government Code.

/s/
Perla Lara, TRMC/CMC, CPM
City Secretary

CITY OF McALLEN

ITEM SUMMARY

BOARD: City Commission

AGENDA ITEM 1.
DATE SUBMITTED
MEETING DATE 9/14/2026

1. Agenda Item: Present questions to staff relating to the September 14, 2026 Regular Meeting Agenda, to be discussed at such meeting.

2. Party Making Request:

3. Nature of Request:

4. Routing:
   Mario Cedillo Created -

5. Staff Recommendation:

6. Advisory Board:

7. City Attorney:

8. Manager's Recommendation:

CITY OF McALLEN

ITEM SUMMARY

BOARD: City Commission

AGENDA ITEM 2.
DATE SUBMITTED
MEETING DATE 9/14/2026

1. Agenda Item: Presentation on the ongoing planning and engineering design efforts related to the Brackish Groundwater Desalination Facility.

2. Party Making Request:

3. Nature of Request:

4. Routing:

Cindy Zuniga	Created -
Angie Rodriguez	-
Sonia Resendez	-
Gerardo Noriega	-

5. Staff Recommendation:

6. Advisory Board:

7. City Attorney:

8. Manager's Recommendation:

McALLEN
PUBLIC UTILITY

Memo

To: Isaac J. Tawil, City Manager

From: Marco A. Vega, P.E., General Manager

Date: September 4, 2026

Subject: Workshop Presentation by MPU and Carollo on the Brackish Groundwater Desalination Plant

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As you know, MPU has been working with Carollo, the project's consulting engineer, on the design of the Brackish Groundwater Desalination Facility planned for North McAllen and who will be providing an update at the scheduled September 14th City Commission Workshop Meeting. The following is a summary of the project for your consideration:

The project will consist of the development of a well field and a desalination facility at our North McAllen Water Treatment Plant Site. The well field will include the installation of up to 13 groundwater wells estimated to produce approximately 10 million gallons per day (MGD) of Brackish Groundwater. The Brackish water will be conveyed to a proposed desalination facility that will also be located at the North Water Treatment Plant for processing. Design efforts will strive for a 90% recovery translating to an estimated 9 MGD of produced water. Water from proposed desalination facility will be blended with water produced from existing surface water treatment facility prior to entering distribution system.

The planned workshop presentation will highlight the following:

- Overall Project Concept
- Overall Project Schedule
- Project Components
- Critical Milestones
- Funding Plan

We look forward to providing a project update to you and the City Commission. Carollo and MPU staff will be available to address any questions. Please let me know if you need anything else.

Prepared for the McAllen City Commission

North McAllen Brackish Desalination Facility Update

September 14th, 2026

carollo

Agenda

- Introduction of Team
- Pre-Drilling of the Test Wells Assumptions
- Post-Drilling Recommendations
- Recovery and Water Production Overview
- Timeline Schedule & Construction Cost
- Next Steps & Discussion

Team

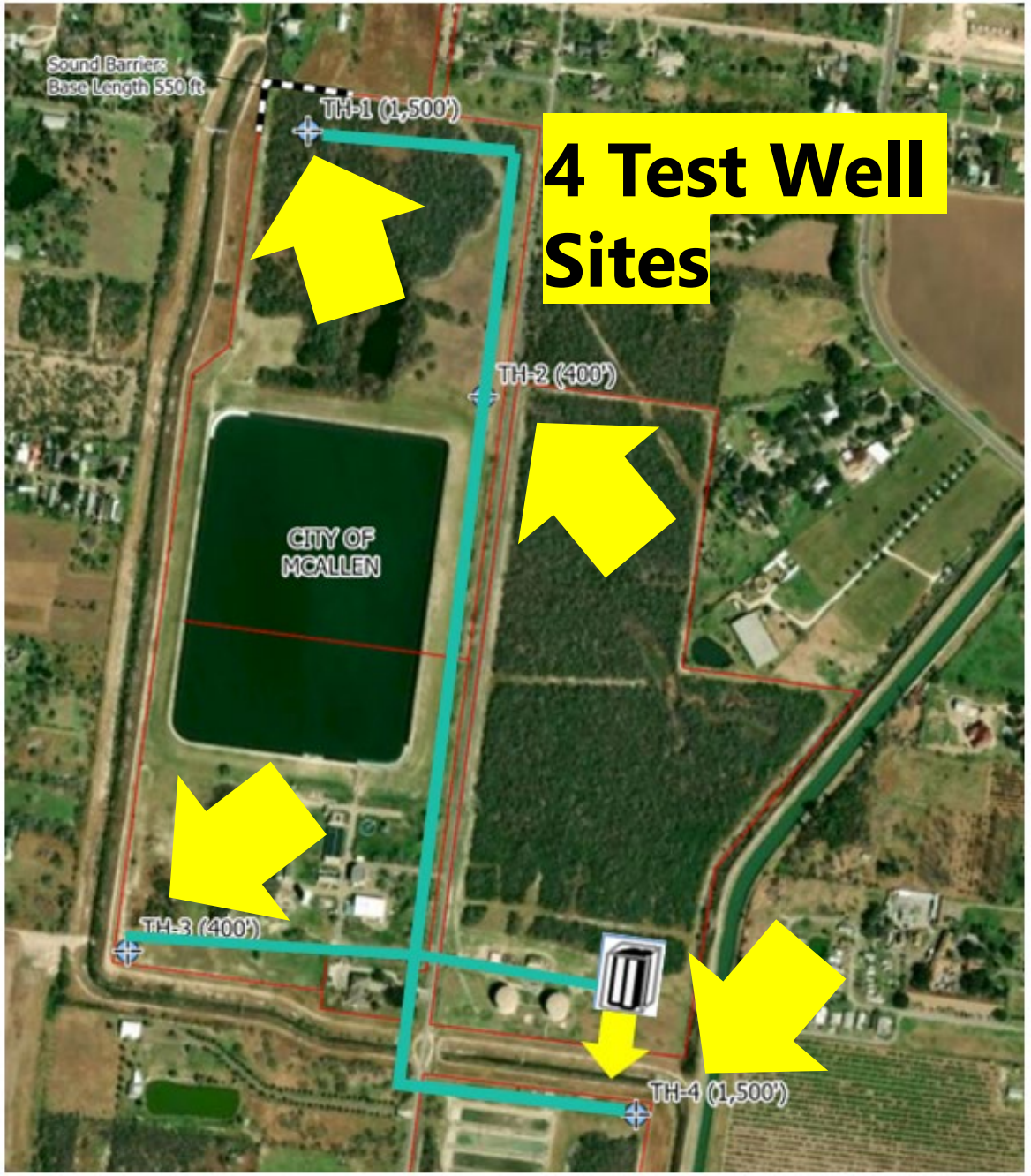

carollo


R W HARDEN
&ASSOCIATES INC
GROUNDWATER RESOURCE PROFESSIONALS 1972
50
YEARS
2022


Geostock Sandia

Initial Proposed Production Groundwater Well Locations

- TEST WELL LOCATIONS



Pre-Drilling Program Assumptions:

- Total of 8 MGD RAW Brackish Groundwater
- 75% Recovery
- 6 MGD of Potable Water

Final Proposed Production Groundwater Well Locations

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Post-Drilling Program Recommendations:

- 5th Well Site Added
- Anticipate 10 MGD of Groundwater Production
- Planning for 90% Recovery @ RO Facility
- ~9 MGD Potable Water
- 13 Wells at the 5 Wells Sites
  - 5 Deep
  - 5 Intermediate
  - 3 Shallow

Recovery and Water Production

Wellfield Production flow stays the same

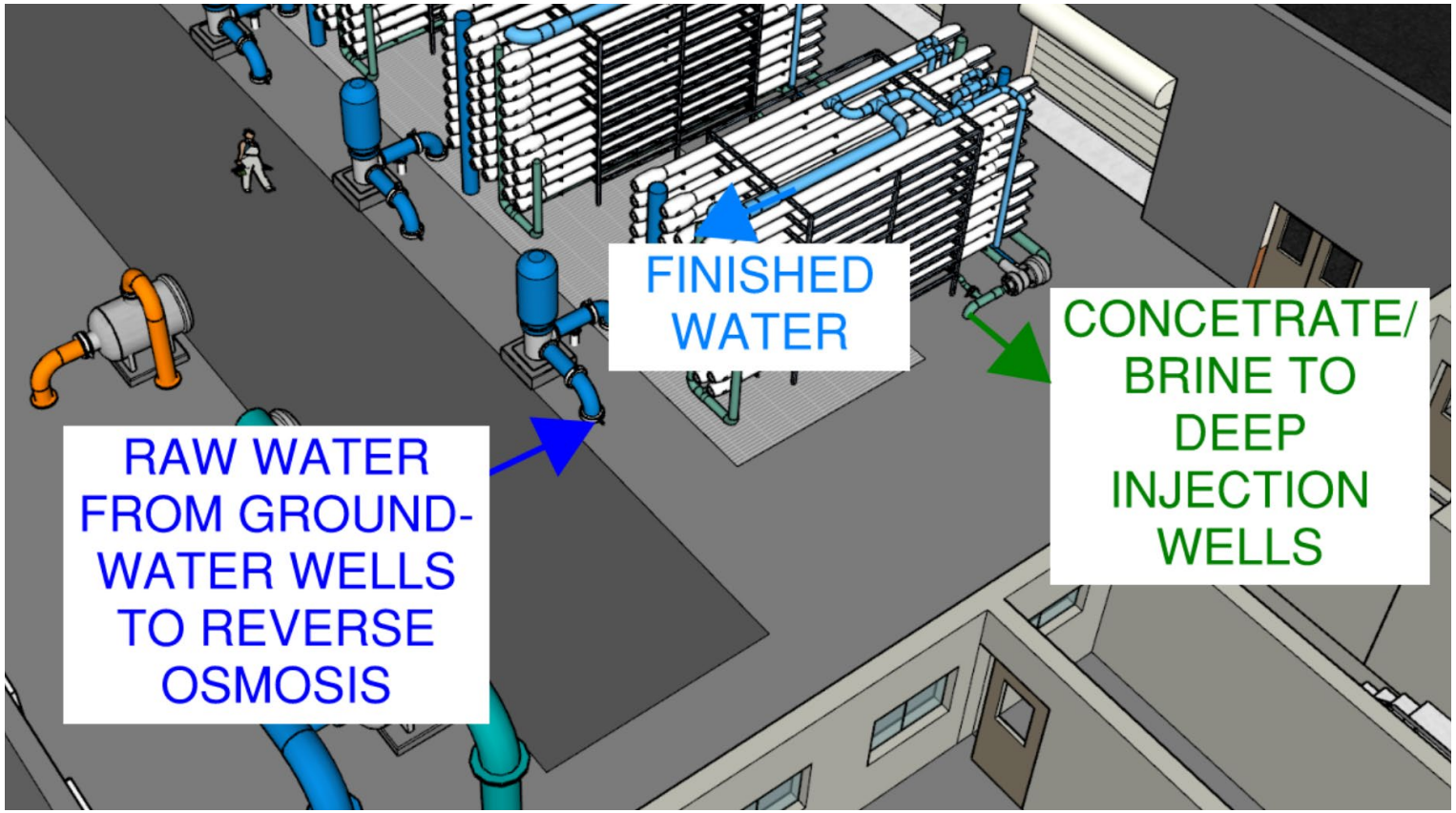
Parameter	Units	75% Recovery	80% Recovery	85% Recovery	90% Recovery
RO WTP Flows					
Wellfield Flow[3]	MGD	10.0	10.0	10.0	10.0
RO Brine (Concentrate) Flow	MGD	2.4	1.9	1.4	1.0
Finished Water Flow	MGD	7.6	8.1	8.6	9.0
Brine TDS Concentration	mg/L	19,760	24,676	32,815	49,030
Brine Dilution Flows					
Raw Surface Water Blending Flow[1]	MGD	1.4	1.9	2.4	3.4
Raw Groundwater Water Blending Flow[2]	MGD	2.1	2.8	3.4	4.9

Notes:

1. Blending flow required to meet a brine discharge TDS limit of 12,720 mg/L (daily max limit-TCEQ). Assumes a TDS of 838 mg/L in the surface water pond.
2. Assumes a TDS of 5,000 mg/L in the groundwater.
3. Finished Water Flows are based on the best estimate at this time.

Deep Well Injection Concentrate Analysis

- Geostock Sandia is our Deep Well Injection Expert
- To confirm the water recovery (finished water) a core compatibility test was required. The “core” is a soil sample of the injection well site geology.
- The water recovery determines levels of TDS in concentrate stream.
- Analysis indicates 2 deep injection wells will be required.



CONSTRUCTION COST ESTIMATE AT 10% DESIGN

10% DESIGN ON SITE WELL CONSTRUCTION COSTS

Classification	Notes	Quantity	Units	Unit Cost	Extended Cost
Groundwater Wells					
Scenario 5 (13 Wells)	(1)		-		$ 23,000,000
Scenario 5 (13 Well Pumps)	(1)		-		$ 6,570,000
Total Well Construction Cost					$ 29,570,000
RWH Engineering Fee for Wells			-		$ 842,000
RWH Construction Services			-		$ 3,236,000
Escalation to Midpoint			-	5%	$ 1,480,000
Contingency			-	10%	$ 657,000
Total Groundwater Wells Project Cost					$ 35,785,000

DEEP WELL INJECTION COST ESTIMATE (BALLPARK)

Total Deep Well Injection Project Cost	(2)				$ 15,200,000

CONCENTRATE PUMP STATION COST ESTIMATE (BALLPARK)

Total Concentrate Pump Station Cost					$ 10,000,000

10% DESIGN ON SITE WTP CONSTRUCTION COSTS

RO Process Mechanical						
Building	(3)	33,000	SF	$ 325	$	10,730,000
Desanders		6	EA	$ 613,000	$	3,680,000
On Site Yard Piping						
12" Diameter		390	LF	$ 220	$	90,000
18" Diameter		290	LF	$ 260	$	80,000
20" Diameter		666	LF	$ 285	$	190,000
24" Diameter		1900	LF	$ 330	$	630,000
RO Equipment	(4)	9.1	MGD	$ 890,000	$	8,100,000
Chemical Storage/Feed System						
Scale Inhibitor		1	LS	$ 250,000	$	250,000
Carbon Dioxide	(5)	1	LS	$ 1,450,000	$	1,450,000
Sodium Hypochlorite		1	LS	$ 1,068,000	$	1,070,000
Calcite Contactors		1	LS	$ 6,000,000	$	6,000,000
Caustic Soda		1	LS	$ 250,000	$	250,000
Liquid Ammonium Sulfate		1	LS	$ 250,000	$	250,000
High Service Pump Reservoir/Ground Storage Tank		1	GALLON	2,770,000	$	2,770,000
Process Electrical		1	-	25%	$	21,434,000
Standby Power for RO WTP	(6)	1	LS	$ 1,400,000	$	1,400,000
Process Instrumentation	(7)	1	-	12%	$	10,290,000
Site Work		1	LS	$ 500,000	$	500,000
Unidentified Items	(10)	1		0%	$	-
Total Direct Costs					**$**	**79,164,000**
General Conditions			-	12%	$	9,500,000
Builders Risk and G&L Insurance			-	3%	$	2,380,000
Contractor Overhead and Profit			-	12%	$	9,500,000
Total Burden Direct Cost					**$**	**100,544,000**
Payment and Performance Bond			-	1%	$	1,010,000
Contingency	(8)		-	30%	$	30,170,000
Escalation to Midpoint of Construction	(9)		-	0%	$	-
TOTAL WTP CONSTRUCTION COST					**$**	**131,720,000**
Engineering and Administration			-		$	13,800,000
Engineering Services During Construction			-		$	8,300,000
TOTAL PROJECT COST	(11)				**$**	**204,900,000**

Abbreviations: LS = Lump Sum; EA = Each; NA = Not Applicable

Notes:

(1) RW Harden's Scenario 5 Wellfield Design consists of four tested well sites plus one 5th well site.

(2) This assumes one duty and one standby deep injection wells and assumes a concentrate flow rate corresponding with an RO recovery rate of 90%. Core sample analysis will confirm if RO recovery needs to be reduced, which may increase the concentrate flow and number of injection wells.

(3) Includes RO Building, Concentrate Pump Station, Equipment Slabs, and climate controlled VFD buildings at each of the 5 wellfield sites. Includes general building HVAC, plumbing, and electrical. Unit price based on pre-engineered metal building type construction. Unit price based on usable square footage.

(4) Includes membrane train frames, pressure vessels, piping, membranes, CIP system, cartridge filters and associated instrumentation and control equipment terminated to a marshalling panel that will connect to a plant PLC system.

(5) Includes three 14-ton CO2 storage tanks (one for extra CO2 storage capacity), two solution feed panel skids, and associated piping.

(6) Assumes Class I electrical reliability as defined by EPA 430-99-74-001 and standby power capable of operating the WTP, the wellfield pumps and deep injection facilities at their nameplate capacity.

(7) I&C costs for WTP, production wellfield, and deep injection wells at their nameplate capacity.

(8) This is a Class 4 Budget Estimate as defined by AACEI's Revised Classification (1999) with an expected accuracy of ± 30 percent. This cost estimate is based upon the Engineer's perception of current conditions in the project area and is subject to change as variances in the cost of labor, materials, equipment, services provided by others or economic conditions occur. Since the Engineer has no control over these factors, the Engineer cannot warrant or guarantee the actual bids will not vary form these costs presented herein. This estimate does, however, reflect the Engineer's professional option of accurate costs at this time.

(9) Escalation to midpoint of construction costs is expected and may be added based on fluctuations in market conditions.

(10) Unidentified items are expected to be encountered and will be added as the project progresses.

(11) The total project cost includes the Total WTP Construction Cost, the Total Groundwater Wells Project Cost, and the total Deep Well Injection Project Cost. The Concentrate Pump Station Cost is factored into the WTP construction costs.

Project Timeline

July 2025	Jan 2026	Oct 2026	Jan 2027	Feb 2027	Mar 2027	April 2027
• Carollo submits TCEQ Discharge Permit Application	• TCEQ confirms a drainage ditch discharge limit of 12,720 mg/L for daily max	• Start Preliminary Engineering & Final Design of Desal Plant (15 months to Final Design) • Start Design of Production Permanent Wells • Start Deep Well Injection Permit Application (4 months to complete the application months) and Well Materials & Waste Stream	• Earliest date for results of Well Materials & Waste Stream Testing • Regulatory Submittals to TWDB, TCEQ and Plan Review Period • Submit Deep Well Application	• Contractor Bidding, Selection/Award, Contracting and Mobilization	• TCEQ Begins Technical Review of Deep Well Injection Permit Application (18 months)	• Begin Contractor Bid Evaluation Process

Project Timeline

Jun 2027	Dec 2027	Feb 2028	Feb 2028	Apr 2028	Jun 2028	Sep 2028	Nov 2028
• Issue Notice to Proceed for the Construction of the Permanent Production Wells	• Finish Design of Desal Plant and Submit to TCEQ for Approval	• Commence Bid Phase of Desal Plant	• Well Construction Complete • Earliest Date for Pump and Motor Equipment Procurement, Install, and Acceptance Testing	• Award Construction Contract of Desal Plant and Issue Notice To Proceed (36 Months to final completion)	• Project Commissioning and Final TCEQ Approval for Use	• Draft Permit for Construction of the Deep Injection Wells (2 Months) • TCEQ Approves completion of the Production Permanent Wells	• Job Planning, Procurement, and Location Construction of the Deep Injection Wells (4 Months)

Project Timeline

Mar 2029	July 2029	Jan 2030	Oct 2030	April 2031
• Drill and Completion of Deep Injection Wells • Actual core samples available for testing and treatment plant design confirmation	• Prepare and Submit Drilling and Completion Reports to TCEQ, TCEQ Review, and Approval of the Deep Injection Wells (6 months)	• TCEQ Approves completion of Deep Injection Well	• Desal Plant Substantially Complete (30 months)	• Final Completion & Startup of Desal Plant (36 Months from Notice To Proceed)

Next Steps:

- Process design contracts.
- Obtain TCEQ Discharge Final Permit for surface disposal.
- Obtain Hidalgo County Drainage District Permit
- Begin design for 4 Bid Packages

DISCUSSION

August 11th, 2026

CITY OF McALLEN

ITEM SUMMARY

BOARD:	AGENDA ITEM	3.A.
	DATE SUBMITTED	
	MEETING DATE	9/14/2026

1. Agenda Item: Discussion and possible lease, sale or purchase of real property, Tracts 1. Tex. Gov't. Code §551.072.

2. Party Making Request:

3. Nature of Request:

4. Routing:

Crystal Montano	Created -
Austin Stevenson	-
Angie Rodriguez	-
Sonia Resendez	-
Gerardo Noriega	-

5. Staff Recommendation:

6. Advisory Board:

7. City Attorney:

8. Manager's Recommendation:

CITY OF McALLEN

ITEM SUMMARY

BOARD:	AGENDA ITEM	3.B.
	DATE SUBMITTED	
	MEETING DATE	9/14/2026

1. Agenda Item: Consideration of Economic Development matters. Tex. Gov't. Code §551.087.

2. Party Making Request:

3. Nature of Request:

4. Routing:

Crystal Montano	Created -
Austin Stevenson	-
Angie Rodriguez	-
Sonia Resendez	-
Gerardo Noriega	-

5. Staff Recommendation:

6. Advisory Board:

7. City Attorney:

8. Manager's Recommendation: